

SUICIDE MORTALITY, ARIZONA, 1989-1999

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PURPOSE

The purpose of this report is to provide information to individuals interested in suicide mortality among Arizona residents. The data for 1999 are placed in a temporal context by comparison with the data for the preceding years.

METHODS AND SOURCES

Data on the number and characteristics of suicide deaths in Arizona were obtained from the death certificates filed with the Arizona Department of Health Services. Suicide is defined by the ICD-9 codes* E950-E959 for underlying cause of death.

Population denominators for Arizona residents, used to calculate rates, are projections from the Population Statistics Unit in the Arizona Department of Economic Security (data for 1989 and 1993-1999) and the U.S. Census Bureau (data for 1990 and data by ethnic group for 1999).

***International Statistical Classification of Diseases, Injuries and Causes of Death. Ninth Revision.** Geneva: World Health Organization, 1977.

In order to obtain the 1991-1992

population denominators, the 1990 percentages of population breakdowns (or census shares) were applied to 1991 and 1992 total state or county population estimates published by the DES.

DATA ORGANIZATION

Tables 1, 3-5, 7-11, 18, 21 and 22 present annual rates and numbers of suicides from 1989 to 1999. Temporal trends and changes may be assessed from these data. Tables 12-14 and 16-20 describe suicide mortality among Arizona residents in 1999 by such factors as county of residence, method of self-injury, month of occurrence, marital status, gender and ethnicity. Tables 21 and 22 provide information about the number of suicide deaths by single year of age among persons 19 or younger and 65 years and older.

KEY FINDINGS

This section presents some illustrative findings contained in the figures and tables of the report. It is not intended to be an exhaustive analysis of the tabulated data. When possible, U.S. data as well as data for other states are presented in order to provide a comparative context for Arizona suicide mortality statistics.

✧ Relative to the national rate, Arizonans were more likely to kill themselves in each year from 1989 to 1999 (**Figure 1, Table 1**).

✧ During 1999, a total of 773 Arizona residents committed suicide, a decrease of 72 or 8.5 percent from the 1998 figure of 845 (**Table 1**).

✧ The Arizona age-adjusted suicide mortality rate decreased by 14.1 percent from 17.0 suicides per 100,000 persons in 1998 to 14.6/100,000 in 1999, (**Figure 1, Table 1**) the lowest rate in twenty years.*

✧ Despite this decline, the 1999 Arizona suicide death rate was 39 percent higher than the year 2000 national health objective of 10.5 suicides per 100,000 population.

✧ The suicide mortality rate among adolescents dropped 55.3 percent from 23.7/100,000 in 1997 to a rate of 15.2/100,000 in 1998 and 10.6/100,000 in 1999 (**Figure 2, Table 3**).

✧ The suicide rate for young adults 20-44 years old declined for the fifth consecutive year from 37.3/100,000 in 1994 to 14.7/100,000 in 1999 (**Figure 2, Table 3**).

✧ In 1989-1999, all annual age-specific suicide mortality rates among Arizonans aged 65 and older exceeded by at least 12 percent the corresponding U.S. rates (**Figure 4**).

✧ Suicide rate among elderly Arizonans 65 years and older decreased by 3.7 percent from 24.1/100,000 in 1997 to 23.6/100,000 in 1998, and 23.2 in 1999, the lowest rate of the 1989-1999 period.

✧ In 1999, as well as in each year from 1989 to 1993, the suicide rate among elderly persons (65 years and older) was the highest among all age groups in Arizona (**Table 1**).

✧ Gender-specific age-adjusted suicide mortality rates indicate that men are more likely than women to commit suicide (**Figure 5, Table 8**). The 1999 male suicide rate (23.3/100,000) was 4 times greater than the corresponding female rate (5.9/100,000). Approximately eight out of every ten suicide victims (79.3 percent) in 1999 were males (**Table 13**).

✧ Firearms accounted for 64.1 percent of suicide deaths in Arizona in 1999 (**Table 17**). Male suicides used firearms more frequently (70.1 percent) than female suicides (40.6 percent, **Table 15**). Asian suicide victims were the most likely among ethnic groups to die from poisoning (42.9 percent). American Indian suicides were more likely to die

*The age-adjusted suicide mortality rates for 1980-1989 were published in ***Closing the Decade: Arizona Health Status and Vital Statistics, 1980-1989***. Phoenix: Arizona Department of Health Services 1991:p.71.

from hanging or strangulation (51.2 percent) than firearm use (32.6 percent, **Figure 6, Table 20**).

✧ The age-adjusted suicide mortality rate for American Indians exceeded the statewide rate by 24.7 percent (**Figure 7**). In contrast, the 1999 age-adjusted suicide mortality rate among Asians was 56.2 percent lower than the rate for all groups (**Figure 7**).

✧ Married Arizonans clearly were the least likely to end their own lives compared to Arizonans in other marital statuses (**Figure 8, Table 14**). Marital disruption in the form of divorce or death of a spouse was a factor that increased the risk of committing suicide. A divorced person was 2.3 times, a widowed person 1.4 times, and a never married person 1.1 times more likely to end his/her own life than a married Arizonan.

✧ The average age of Arizonans who died in 1999 from a self-inflicted injury was 48.3 years (**Table 1**). The majority (336 out of 589, or 57.0 percent) of White non-Hispanic suicide victims in 1999 were at least 45 years old. In contrast, only 19.8 percent of suicides among Hispanic residents of Arizona, 20.9 percent of suicides among American Indians, and 26.3 percent of suicides among Blacks were at least this old (based on data in **Table 7**).

✧ The suicide death rates (unadjusted for differences in the age composition) varied in Arizona in 1999 from 10.8/100,000 among Greenlee County residents, to 28.9 suicides per 100,000 residents of Yavapai County (**Table 9**).

✧ During 1998 (the latest year for which the age-specific suicide mortality rates are available by state), the suicide mortality rates among adolescents 15-19 years old ranged from 3.9/100,000 in New Jersey to 35.0/100,000 in Alaska. Arizona adolescents ranked tenth highest in the nation (**Figure 9**).

✧ Among young adults, 20-24 years old in 1998, suicide mortality rates ranged from 6.4/100,000 in the District of Columbia to 55.5 in Alaska. Arizona young adults in this age group ranked sixth highest (**Figure 10**) among all states.

✧ Suicide mortality rates for elderly 65 years and older ranged from 7.8/100,000 in Rhode Island to 27.8 per 100,000 in Montana. Arizona ranked sixth highest (**Figure 11**) among the 50 states and the District of Columbia.

✧ In 1998, the total age-adjusted suicide mortality rates ranged from 6.4/100,000 in New Jersey to 22.1 in Alaska. Arizona ranked third highest among the 50 states and the District of Columbia in its suicide mortality rate for all ages (**Figure 15**).